

Remarks

The Applicants have amended Claim 1 to include the subject matter of Claim 2. Claim 2 has accordingly been cancelled. Also, Claim 1 has further been amended to move the portion in the preamble with respect to the light transmittance at wavelengths of from 450 nm to 700 nm to the same location as the light transmittance added from Claim 2 for ease of readability. Claim 1 has further been amended to correct a typographical error in formula (I) and has still further been amended to remove the phenyl group from R⁹. Finally, the light transmittance at a wavelength of 400 nm from Claim 2 has been changed from 80% or more to 75% or more. Support may be found in the Applicants' Specification on page 6 at line 15, for example. Entry of the above-mentioned amendments into the official file is respectfully requested.

Claims 1-2, 4-5, 7-22, 36 and 38-46 stand rejected under 35 USC §112 as being indefinite. The Applicants note with appreciation the Examiner's helpful comments with respect to Formula (I). As noted above, the Applicants have corrected a typographical error in that formula. Withdrawal of the rejection is respectfully requested.

Claims 1-2, 4-9, 7-22, 36, 38-39, 41 and 42 stand rejected under 35 U.S.C. §102 as being anticipated by Harris. The Applicants note with appreciation the Examiner's helpful comments and observe that the rejection of cancelled Claim 2 is moot. The Applicants respectfully submit, however, that Harris does not anticipate Claim 1 or any of the other claims in this rejection. Reasons are set forth below.

The Applicants first respectfully submit that Structures II, III and IV from the rejection are inapplicable. This is because Formula II (as well as Formulae III and IV) corresponds to the situation when $r = p = q = 1$ from Formula I. However, that is different from the Applicants' claimed formula. Thus, the Applicants respectfully submit that the Formulae II, III and IV from

Harris are completely different.

That leaves treatment of Formula I as the sole issue with respect to Harris. First, the Applicants respectfully submit that Harris is non-enabling with respect to the claims in this rejection. Harris provides an extremely broad range of chemical structures to the degree that they are merely speculative and very few of the large number of theoretically possible structures are identified by name or made in the examples. Thus, there is no guidance in Harris as to individual structures and how those structures would be made. This renders Harris non-enabling with respect to those structures that are not identified and have not been demonstrated as to how to make those structures. This is particularly compelling given the nine parameters defined in the various formulae of Harris such as r , p , q , A , B , F , Y , n and Z . These nine variables provide for an extremely high number of theoretical structures, only a tiny, tiny fraction of which have been identified by name and made. Those other theoretical structures are merely imaginary and, as a consequence, Harris is non-enabling with respect to those unnamed structures. This alone is sufficient to remove Harris from consideration inasmuch as there is no overlap between the unnamed Harris structures and those claimed by the Applicants.

There is another problem. That problem is that the rejection speculates that since there are overlapping structures, the optical and mechanical properties would inherently be the same. However, the Applicants note that in the instance that Formula I is specified such that $Y = NH$, $r = 0$, $p = 1$, $q = 0$, $n = 0$ and $F = \text{covalent bond}$, this results in the structure of PPTA (polyparaphenylene terephthalic amide). This is the non-transparent material commonly known as KEVLAR®. Moreover, the above-mentioned PPTA corresponds to Comparative Example 1 in the Applicants' Specification wherein the light transmission at a wave length of 450 nm is incredibly low. What this means is that the rejection is merely speculative with respect to the

characteristics claimed by the Applicants being the same as in Harris. The Applicants have specifically claimed a light transmittance of 80% or more for all lights with wave lengths of from 450 nm to 700 nm and 75% or more for light with a wavelength of 400 nm for the Applicants' limited number of structures. There is nothing in Harris that would lead one skilled in the art to believe that the optical and mechanical properties would be the same. This is because the Applicants have already demonstrated that at least one Harris compound is outside of the Applicants' claimed ranges. There is nothing in Harris that would indicate that structures as claimed by the Applicants would have such characteristics based on the proof presented by the Applicants that at least one other structure has completely different characteristics.

It must be remembered that reliance on inherency requires that the claimed physical characteristic be "necessarily" present. It is not good enough that the claimed physical characteristic might be or could be present. It must "necessarily" be present. The Applicants have demonstrated that the claimed characteristic is not "necessarily" present in this case. The Applicants have chosen one of the structures within the disclosure of Harris that does not overlap with the Applicants' claims and demonstrated that it has a different light transmittance. Therefore, the rejection has not met its burden when relying on inherency that the claimed characteristic is "necessarily" present. Withdrawal of the rejection based on Harris is respectfully requested.

Claims 1-3, 7, 10-15, 22, 36 and 38-39 stand rejected as being anticipated by Murakami. The Applicants again note with appreciation the Examiner's detailed comments. However, the Applicants respectfully submit that Murakami is inapplicable essentially for the same reasons as set forth above with respect to Harris.

Claims 1-2, 4-5, 7, 9-14 and 20-22 stand rejected under 35 USC §102 as being

anticipated by Handa. The Applicants respectfully submit that this rejection is similar to Harris and must fail for the same reasons. In particular, Handa discloses an extremely broad range of polyamides without providing named structures that correspond to those as claimed by the Applicants. Thus, it is nothing but complete speculation that the Applicants' claimed range of structures would have the claimed light transmittance based on the disclosure of Handa. Moreover, the Applicants have already factually demonstrated that Handa does not provide films that reach 80% in light transmittance. As a consequence, the Applicants respectfully request withdrawal of Handa.

Claims 1-2, 4-5, 9-14 and 20-22 stand rejected under 35 USC §102 as being anticipated by Tsukuda and Claims 1-2, 4-5, 7, 9-14 and 20-22 stand rejected under 35 USC §102 as being anticipated by Tsukuda¹.

Tsukuda is assigned to the same Assignee of this Application and, as noted in the previous Response, films disclosed in Tsukuda are colored. In other words, the light transmittance does not satisfy the claimed light transmittance in this Application. Thus, there inherently cannot be anticipation because the Applicants have already demonstrated that Tsukuda films are colored and, therefore, their light transmittance is not the same. Withdrawal of Tsukuda is respectfully requested.

In particular, the Applicants note that Formula (22) of Murakami corresponds to Formula (I) of Harris. Similarly, Formula (23) of Murakami corresponds to Formula (II) of Harris. The Applicants have already demonstrated that Formula (II) of Harris is inapplicable. That means that Formula (23) of Murakami is inapplicable. Similarly, the Applicants have already demonstrated that the structures of Formula (I) of Harris do not "necessarily" have the same claimed physical characteristics. The same holds for Formula (22) of Murakami. Withdrawal of

the rejection based on Murakami is respectfully requested.

Claims 1, 7-9 and 22 stand rejected under 35 USC. §102 as being anticipated by Elfert. Elfert suffers the same deficiencies set forth above with respect to Harris, Murakami and Handa. There is no factual demonstration that the Applicants' claimed structures would "necessarily" have the claimed light transmittance based on the Elfert disclosure. Elfert merely discloses an extremely broad range of polyamide structures and there is nothing that would lead one skilled in the art to believe that the light transmittances of those structures would inherently be the same as the light transmittance of the Applicants' claimed structures. As noted above, the Applicants have already demonstrated that such light transmittance is not "necessarily" the same. Withdrawal of Elfert is respectfully requested.

Claims 1-2, 10-15, 22, 36 and 38-39 stand rejected under 35 USC §102 as being anticipated by Yamaoka. This publication is similar to Harris and Murakami with respect to Formula (22) and Formula (23). Therefore, Yamaoka is completely inapplicable.

Claims 1-2, 4-5, 7-9, 14 and 20-22 stand rejected under 35 USC §102 as being anticipated by Teramoto. The Applicants respectfully submit that Teramoto suffers the same deficiencies as set forth above with respect to various of the other publications. There is no factual demonstration that the Applicants' claimed structures would "necessarily" have the claimed light transmittances based on the Teramoto disclosure. That disclosure includes an extremely broad range of polyamide structures and there is nothing that would lead one skilled in the art to believe that the light transmittances of those structures would inherently be the same as the light transmittances of the Applicants' claimed structures. Withdrawal of Teramoto is respectfully requested.

Claims 40-46 stand rejected under 35 USC §103 over the hypothetical combination of

Vargo with Yamaoka or Murakami or Tsukuda or Harris or Handa or Teramoto. The Applicants respectfully submit that Vargo fails to provide teachings or suggestions that would cure the deficiencies set forth above with respect to Yamaoka, Murakami, Tsukuda and Harris. In particular, Vargo does not cure the problem that the claimed light transmittances are not “necessarily” present in the Applicants’ claimed polyamide structures. Withdrawal of that rejection is also respectfully requested.

By way of summary, the Applicants respectfully submit that the claimed subject matter is neither anticipated by nor obvious over the references of record. The Applicants provide a polyamide which has a high light transmittance as specifically claimed at 400 nm and 450-700 nm and, which at the same time, exhibits a high Young’s modulus when made into a film. The Applicants respectfully submit that none of the publications disclose improving a polymer structure with both highlight transmittance in multiple wavelength ranges and a high Young’s modulus. Moreover, the Applicants respectfully submit that merely because compositions have selected similar chemical components, they do not necessarily have the same light transmittance. There are any number of variables that impact such light transmittance other than the actual elements comprising a particular polyamide. For example, the crystalline structure might be affected in any number of ways such as the method of manufacture and those skilled in the art know that all of these variables can result in different light transmittances. Thus, given the fact that none of the prior art of record discloses the Applicants’ claimed light transmittance ranges, they fail to render the claimed subject matter as being anticipated or obvious. Also, in the conventional art, there really existed only “a film colored to yellow and high in Young’s modulus” or “a film transparent and low in Young’s modulus.” Therefore, in practice, the Applicants are the first to produce “a film transparent and high in Young’s modulus.”

The light at 400 nm is a "Blue" light among the three primary colors, Red, Green, Blue of transmitted light. If the transmittance of this Blue light is low (if absorbed by a resin or a film), coloring to yellow occurs by the remaining Red and Green lights. The Applicants control the light transmittance of this light with a wavelength of 400 nm at 75% or more. Thus, a transparent resin or film, which is not colored to yellow, is obtained. Withdrawal of all of the prior art rejections is accordingly respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



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